

REMARKS

Claims 1 and 3-11 are pending. Claim 5 has been withdrawn from consideration. Claims 1 and 6 are amended herein. New claims 10 and 11 have been added herein. Claim 1 has been amended to incorporate claim 2. Support for the amendment to claim 6 is detailed below. Support for the new claims is found at least at paragraphs [0030] and [0033] of the specification.

Specification

Upon review of the specification, applicants note that Example 2 as explained in paragraph [0096] of the specification recites that the pH is adjusted to “5.0”. This is an error and has been corrected by amendment herein. Support for the amendment is found at least in the recitation in Table 1, paragraph [0106] which states that the pH is 3 for Example 2. Further, the PCT publication describes that the pH in Example 2 in paragraph [0096] is “3”.

Applicants’ Response to the Claim Objections

Claim 1 is objected to because it recites “is” next to “are”. Applicants have corrected this discrepancy by deleting the term “is.”

Claims 6-9 are objected to because the claims depend on claim 5 which is a withdrawn method claim, and had depended from claim 1. In response thereto, applicants have amended claim 6 to depend directly from pending claim 1.

Applicants' Response to the Claim Rejections under 35 U.S.C. §102

Claims 1-4, 6, 8 and 9 are rejected under 35 U.S.C. §102(b) as being anticipated by Saiki (US 2002/0075428), as evidenced by Kemira (Nitric Acid 98-99% Health & Safety Data Sheet).

Regarding claims 1-4, the rejection relies on Saiki's teachings at paragraph [0035] which describes an adhesive containing a polyvinyl alcohol-based resin with an acetoacetyl group and a water soluble crosslinking agent. One of the choices for a crosslinking agent is nitric acid. The Office maintains that since the adhesive is an aqueous solution as set forth in paragraph [0042], nitric acid is dissolved in the aqueous solution, and thus the aqueous solution has a pH that is within the range of 4.3 or less, or from 2.2 to 4.3, as evidenced by Kemira. The rejection further cites to Kemira as evidence that the property of pH value would be inherent to the aqueous solution of Saiki. Particularly, the Examiner states that "Kemira teaches that nitric acid has a pH of less than 1 (9. Physical and Chemical Properties)."

Applicants respectfully traverse the rejection on at least the basis that Saiki does not teach all the features of the claimed invention either expressly or inherently. Specifically addressed herein, Sakai does not disclose the pH value of an aqueous solution for forming the adhesive, and the teachings of Kemira are insufficient evidence that the aqueous solution of Sakia would inherently have the required pH value.

The subject invention exhibits an action and effect, as described in paragraphs [0010] to [0011] of the specification, that an aqueous adhesive solution which is good in durability and

long in a pot life is obtained by adjusting the pH of the aqueous adhesive solution to from 2.2 to 4.3. In the subject invention, the significance of adjusting the pH within the above-mentioned range is demonstrated in Examples. As set forth therein a pH exceeding the above-mentioned range causes a shorter pot life, and a pH less than the range decreases durability (water resistance). For one example, in regard to the teaching of applicants' specification 35 parts of crosslinking agent to 100 parts of resin are added to pure water to form the aqueous solution A with an adjusted solid matter concentration of 3%. In examples 1-5, only small amounts of acetic acid were added to adjust the pH within the aqueous solution to below 4.3. See paragraph [0094] to [107] of the current application.

Applicants respectfully submit that the claimed pH level of 2.2 to 4.3 in applicants' claim 1 is not inherent to Sakai. Specifically, there is no disclosure within Sakai as to the concentration of nitric acid that would be added to the aqueous solution to act as a crosslinking agent. In fact, no concentration values of nitric acid or pH levels are disclosed at all within Sakai. As such, there is no reasonable way to determine that the pH of the aqueous solution used to make the adhesive of Sakai would be within the claimed range.

In regard to the teachings of Kemira, this disclosure is a health and safety data sheet for the sale of bulk nitric acid in a 96-99% solution. However, without knowing the concentration of the acid as a crosslinking agent in Sakai, there is no basis for the assertion that the aqueous solution used to make the adhesive described at paragraph [0035] must inherently be 2.2 to 4.3.

The Office maintains that it is well known that the pH of a nitric acid is 1 or less, on the basis of the description of Kemira. However, a pH of 1 or less is out the range of pH from 2.2 to

4.3 of the aqueous adhesive solution of the subject invention. Kemira describes neither use for an aqueous adhesive solution for a polarizing plate, nor the action or effect of the subject invention. Therefore, it cannot be considered that the pH from 2.2 to 4.3 of the aqueous adhesive solution of the subject invention is inherent, on the basis of the description of Saiki in light of Kemira.

In addition in regard to claim 3, Saiki merely shows a nitric acid as an example of a crosslinking agent for use in an adhesive, but does not describe controlling the pH by adding an acid in addition to a crosslinking agent as in Claim 3 of the present application.

Wherefore, the subject invention pursuant to claim 1 and its dependents is not anticipated by Sakai as evidenced by Kemira, as the cited reference does not inherently teach a pH of 2.2 to 4.3.

Applicants' Response to the Claim Rejections under 35 U.S.C. §103

Claim 7 is rejected under 35 U.S.C. §103(a) as being unpatentable over Saiki (US 2002/0075428) as applied to claims 1-4, 6, 8 and 9 above, and further in view of Sugino (US 2003/0137732).

Applicants respectfully submit that by addressing the rejection of parent claim 1, the rejection of claim 7 is likewise addressed by nature of its dependency.

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Art Unit: 1794

Amendment
Attorney Docket No.: 062622


In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP


Michael J. Caridi
Attorney for Applicants
Registration No. 56,171
Telephone: (202) 822-1100
Facsimile: (202) 822-1111

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